


CLAMP DEVICE AND CLAMP METHOD FOR
HEAT-TREATED ARTICLE

ABSTRACT



A heat treatment operation can be executed, suppressing a wave-shaped deformation at a non heat-treatment region of an article to be heat treated. To an elongated-shaped article to be heat treated ~~(10)~~ to which a raised portion ~~(11)~~ extending in the longitudinal direction is formed, a hardening region, as a heat-treated region defined to extend in a longitudinal direction at a part of the raised portion ~~(11)~~, and a non-hardening region, as a nonheat-treated region defined to extend in the longitudinal direction at flange portion ~~(13)~~, and other parts of the raised portion ~~(11)~~ are arranged side by side in a width direction orthogonal to the longitudinal direction. The flange portion ~~(13)~~ is clamped by a first and a second clamp ~~(22)~~, ~~(23)~~ arranged in the longitudinal direction, and one first clamp ~~(22)~~ is a tight clamp for holding fixedly the flange portion ~~(13)~~ and a plurality of second clamps ~~(23)~~ are loose clamps for clamping loosely the flange portion ~~(13)~~, allowing the article to be heat treated ~~(10)~~ to be convex on the side of the heated hardening region.